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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/611,610	07/01/2003	Kevin J. Shinnars	P03384US	1449
36122	7590	03/14/2005	EXAMINER	
SETTER OLLILA, LLC 2060 BROADWAY SUITE 300 BOULDER, CO 80302			MAMMEN, NATHAN SCOTT	
			ART UNIT	PAPER NUMBER
			3671	

DATE MAILED: 03/14/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/611,610

Applicant(s)

SHINNERS ET AL.

Examiner

Nathan S Mammen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 January 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 117-127 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 117-127 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Specification

1. The amendment filed 1/14/05 is objected to under 35 U.S.C. 132 because it introduces new matter into the disclosure. 35 U.S.C. 132 states that no amendment shall introduce new matter into the disclosure of the invention. The added material which is not supported by the original disclosure is as follows: In claim 117, the limitation that a volume increment accumulation measuring device generates a volume increment accumulation signal “substantially related to a forage **yield amount**.”

Applicant is required to cancel the new matter in the reply to this Office Action.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 117-127 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

In the amendment filed 1/14/05, claim 117 was amended to recite “a volume increment accumulation measuring device generating a volume increment accumulation signal substantially related to a forage **yield amount**.” The specification does not provide support for this limitation. For a more detailed analysis, see *infra* the “Response to Arguments” section.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claim 117 is rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent No. 6,272,819 to Wendte et al.

The Wendte '819 patent discloses a yield monitor having a volume increment accumulation device (200) for generating a volume increment accumulation signal substantially related to a forage mass/yield amount. Col. 11, lines 11-14. That is, the volume increment accumulation device sends a signal related to the quantity of sugar cane harvested. A computer receives the volume increment accumulation signal and generates a yield amount based on the signal and a forage processing machinery groundspeed. Col. 9, lines 45-65. The yield amount is also based on forage processing machinery intake parameters other than ground speed. Col. 6, lines 40-44.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 117, 119 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S.

Patent No. 5,913,901 to Bottinger et al. in view of U.S. Patent No. 5,480,354 to Sadjadi and U.S.

Patent No. 6,525,276 to Vellidus et al.

The Bottinger '901 patent discloses a square baler comprising a bale mass measuring device. A computer receives product mass signals and generates a yield amount based on the signal. Col. 4, lines 44-52. What the Bottinger '901 patent does not disclose is that the computer also generates a yield amount based on a volume increment measurement and machinery groundspeed.

The Sadjadi '354 patent teaches that it is known in the art to provide a yield monitor which determines yield based on volume measurements. Col. 2, line 2-3. The Sadjadi '354 patent further teaches that these volume measurements are transmitted to a computer (14) and combined with signals from a global positioning sensor (30) to determine yield. It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the baler of the Bottinger '901 patent with the volume increment measuring device as taught by the Sadjadi '354 patent, in order to provide an on-the-go yield measurement. See Sadjadi, col. 4, line 7-14.

The Bottinger '901 patent does not disclose that the yield amount is based on machinery groundspeed. While machinery groundspeed measurement appears to be implicit in the Sadjadi system (likely obtained from GPS measurements), the Sadjadi '354 patent also fails to mention using machinery groundspeed measurements. However, the Vellidus '276 patent teaches that it

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is known in the art to generate a yield amount by taking into account volume and groundspeed.

Col. 9, lines 45-65. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the square baler yield monitor of the Bottinger '901 patent to take into account machinery groundspeed as taught by the Vellidus '276 patent, in order to provide an improved yield monitor that can display instantaneous results as the machine is moved through the field.

Regarding claims 122-126: The yield monitor of the Bottinger '901 patent measures a force applied to a baler compression plunger. Col. 3, lines 19-44.

8. Claims 120 and 121 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,913,901 to Bottinger et al. in view of U.S. Patent No. 5,480,354 to Sadjadi and U.S. Patent No. 6,525,276 to Vellidus et al., as applied to claim 117 above, and further in view of U.S. Patent No. 5,855,166 to McPherson.

The combination of the Bottinger '901 and Vellidus '276 patents teaches the claimed invention, as stated in paragraph 8 above, except for the yield monitor having a measuring wheel. The McPherson '166 patent teaches that it is known in the art to provide a measuring wheel (65) for a square baler. It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the combination of the Bottinger '901 and Vellidus '276 patents with the measuring wheel as taught by the McPherson '166 patent, in order to provide a means for measuring the side of the hay bale.

9. Claim 127 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,272,819 to Wendte et al in view of U.S. Patent No. 4,487,002 to Kruse et al.

The Wendte '819 patent discloses the claimed invention, as stated in paragraph 5 above, except for the yield monitor generating a groundspeed control signal. The Kruse '002 patent teaches that it is known in the harvesting art to provide a yield monitor that senses the volume increment measurement (i.e. crop load) and operates to control the harvester speed. It would have been obvious to one having ordinary skill in the art to provide the yield monitor of the Wendte '819 patent with the speed control feature of the Kruse '002 patent, in order to provide a means for controlling the machine to operate at the optimum speed for the crop being harvested. Kruse, col. 6, line 60- col. 6, line 3.

10. Claim 117 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,920,018 to Wilkerson et al., in view of U.S. Patent No. 6,272,819 to Wendte et al.

The Wilkerson '018 patent discloses a yield monitor. See col. 40-43. Although the disclosed embodiment of the Wilkerson '019 patent is a cotton harvester having the yield monitor, the yield monitor of the Wilkerson '019 patent is inherently capable being used on forage accumulation machinery, and the Wilkerson '019 patent discloses that the monitor is intended to be applicable to any situation involving "material...transported through a conduit." Col. 9, lines 60-61. The yield monitor comprises a volume increment accumulation measuring device (Fig. 2) generating a volume increment accumulation signal (col. 6, lines 60-63, and col. 7, lines 43-62) substantially related to a forage yield amount – specifically volume (see Title). A computer (162; col. 6, lines 62-64) receives the signal and generates a yield amount (col. 9, lines 40-43). What the Wilkerson '018 patent does not disclose is that the yield amount is also based upon a forage processing machinery groundspeed and forage processing machinery intake parameters. The Wendte '819 patent teaches determining a yield amount based on machinery

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groundspeed and other machinery intake parameters other than groundspeed. Col. 9, lines 45-65, and col. 6, lines 40-44. It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the yield monitor of the Wilkerson '018 patent with the groundspeed and intake parameters input into the yield amount calculation, as taught by the Wendte '819 patent, in order to provide a more complete and accurate yield calculation.

Response to Arguments

11. Applicants' arguments filed 1/14/05 have been fully considered but they are not persuasive.

12. As stated in paragraphs 1 and 3 above, Applicants have amended claim 117 to state that the volume increment accumulation signal is substantially related to a forage "yield amount". In their remarks, Applicants did not comment on why the amendment was made; presumably, it was to overcome the overlapping definitions between "volume" and "mass", as noted in the Advisory Action of 12/23/04, and the application of the prior art based on these overlapping definitions. But the amendment must have support in the specification. In this instance, Applicant has not stated where the specification supports the limitation that the volume increment accumulation signal is substantially related to a forage yield amount, as opposed to a forage mass, and the examiner cannot find the requisite support. To the contrary, the specification explicitly relates the volume increment accumulation signal to the forage mass. See, e.g., Specification, page 14 ("a volume increment accumulation signal substantially related to a forage mass"), page 49 ("the rate of bale movement for each volume increment...is substantially related to the crop mass flow rate"), and page 50 (same). If Applicants

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specification limits the volume increment accumulation signal to being related to a forage mass, then the claims cannot state that the volume increment accumulation signal is related to something other than forage mass.

13. Applicants' arguments that the Wendte patent fails to meet the Federal Circuit's "all elements" requirement, see Apple Computer, Inc. v. Articulate Systems, Inc., 234 F.3d 14 (Fed. Cir. 2000), are also unpersuasive. First, Apple Computer, which Applicants cited to, involved anticipation in an infringement suit. While the determining the scope of a prior art reference is no different in an infringement suit than during examination, the method of construing the claims at issue – to which the prior art reference is being applied – is different. In other words, the "volume increment accumulation signal" of claim 117 might be construed differently in an infringement action than during examination. During examination, patent claims are given their broadest reasonable interpretation because it is at this time that "ambiguities should be recognized, scope and breadth of language explored, and clarification imposed." In re Zletz, 893 F.2d 319, 321 (Fed. Cir. 1990).

Turning to the claim at issue, Applicants state that "the term 'volume' does not appear anywhere in [the Wendte] patent." Remarks, page 5. Perhaps this statement is true, but certainly it is irrelevant. The relevant matter is what is being claimed by Applicant. Claim 117 requires a "volume increment accumulation measuring device generating a volume increment signal substantially related to a forage yield amount." (Note: While the examiner uses the amended claim limitation, the new matter problem remains, as noted above.) Stripping away the modifiers, the claim limitation reduces to "a device generating a signal relating to a yield amount." To determine how the modifier "volume" further defines the limitation, one must first

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ascertain the meaning of the term. “Volume,” as the examiner stated in the Advisory Action, can be defined as “amount; also: bulk, mass.” Merriam-Webster’s Collegiate Dictionary, 10th Ed. (1999). Similarly, “quantity” is generally defined as “an amount”. Id. Thus, even accepting Applicants’ characterization of the Wendte patent, the patent still anticipates the claims in view of the broadest reasonable definition of Applicants’ claims. Applicants may not like these broad definitions of claim terminology, but “[i]t is the applicants’ burden to precisely define the invention, not the PTO’s.” In re Morris, 127 F.3d 1048, 1056 (Fed. Cir. 1997). “[T]he fact that [applicants] can point to definitions or usages that conform to their interpretation does not make the PTO’s definition unreasonable....” Id. In fact, the use of general dictionaries to provide definition of claim terminology is entirely appropriate. Id. (utilizing Webster’s Third New International Dictionary to define “portion”).

Applicants’ arguments with respect to the combination of references including the Sadjadi ‘354 patent are also unpersuasive, for the same reasons as stated above. Applicants state that “Sadjadi does not measure volume,” Remarks, page 8, but then acknowledge that Sadjadi obtains a “volume approximation.” Applicants are arguing that the Sadjadi patent fails to disclose features that are not even present in Applicants’ own claims.

The new rejection of claim 117, in view of the Wilkerson ‘018 patent (see paragraph 10), has been added to highlight the obviousness of claim 117 even when utilizing Applicants claim construction.

Conclusion

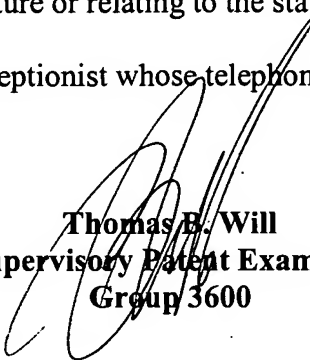
14. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nathan Mammen whose telephone number is (703) 306-5959. The examiner can normally be reached Monday through Thursday from 6:30 a.m. to 5:00 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas B. Will, can be reached at (703) 308-3870. The fax number for this Group is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 305-1113.



Thomas B. Will
Supervisory Patent Examiner
Group 3600

NSM
3/2/05

Nathan S. Mammen